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A NEW SPECIES OF POLYCERA (NUDIBRANCHIA) FROM CALIFORNIA

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Two specimens of nudibranchs from Tomales Bay, sent in by Dr. Joel Hedgpeth, Director of the Pacific Marine Station, Dillon Beach, California, appear to represent a new species, which is here described.

Suborder Doridoidea, Tribe Phanerobranchia, Family Polyceridae.

Polycera hedgpethi, spec. nov. Page 130, figs. 1-4.

Material: Marshall's Landing, Tomales Bay, Marin County, California; 15 ft., on pipe covered with *Bugula* sp., Mr. C. I. Haydock col.; two specimens: holotype and paratype (USNM. 575603).

Description: From a photograph by Dr. Joel Hedgpeth and a drawing by Mrs. Haydock, the base color is gray with small black dots, with yellow-orange marks on the rhinophores, corners of the foot, and on the velar and extrabranchial appendages; streaks of the same color are seen on the pallial ridge, caudal crest, and upper border of the foot, and yellow orange spots are present on widely spaced tubercles all over the body. Preserved animals are light brown, mottled with dark, with the tubercles light and in part still orange, the gills blackish brown with lighter borders,

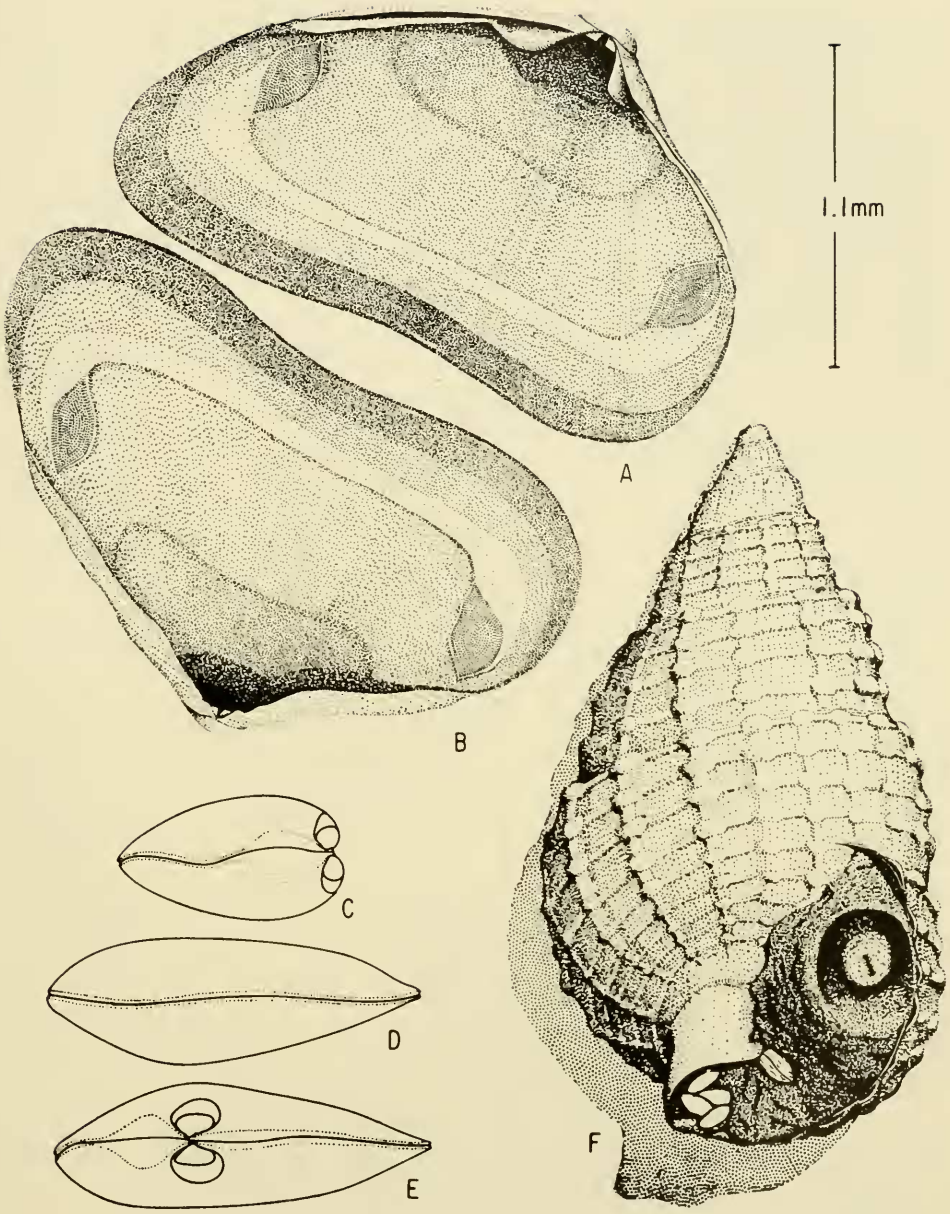
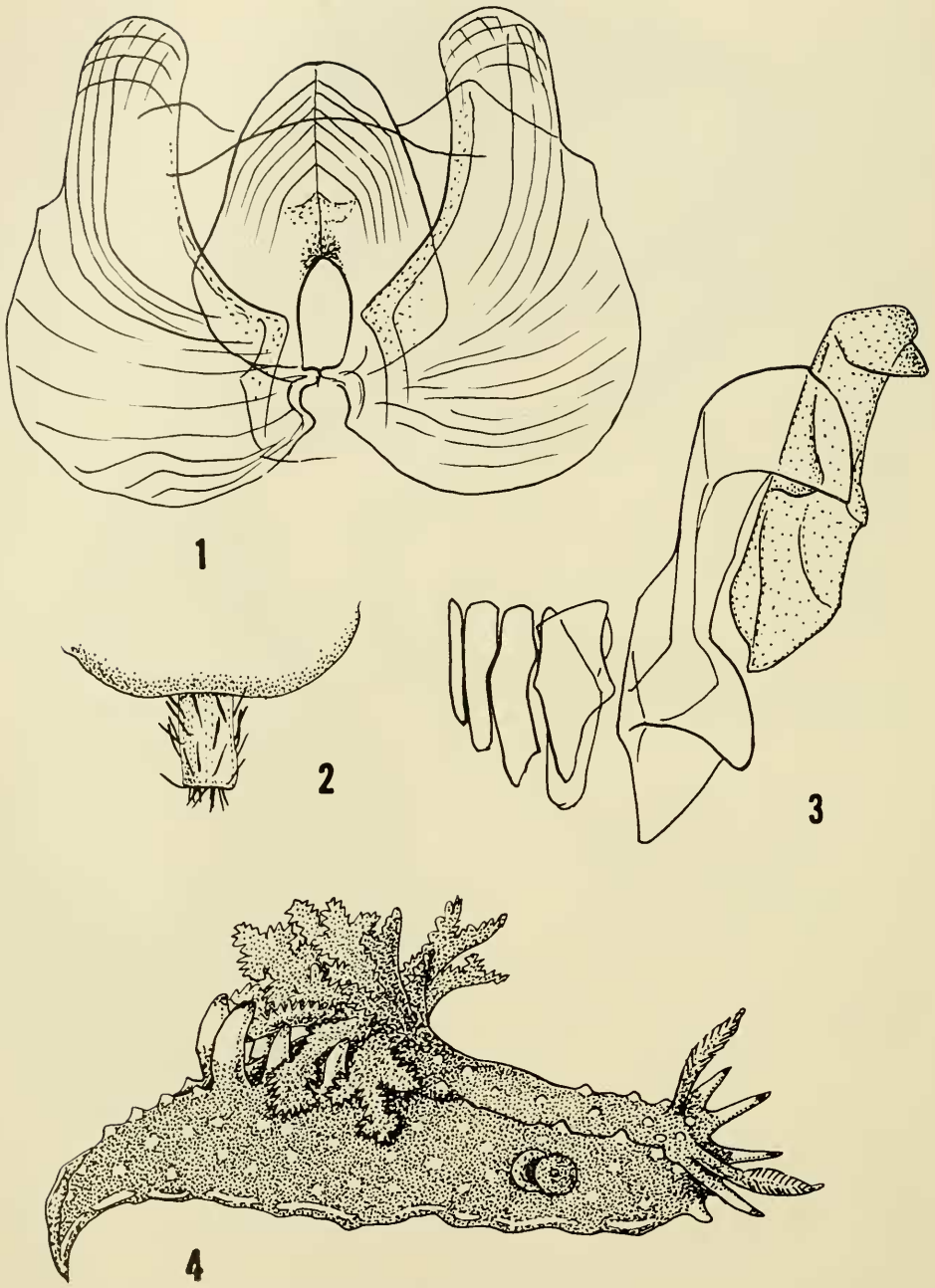


Fig. 1. *Rochefortia (Pythinella) cuneata* (Verrill & Bush, 1898). A. Right valve, medial view, B. Left valve, medial view. C. Posterior view. D. Ventral view. E. Dorsal view. F. Shell of *Nassarius trivittatus* occupied by *Phascolion strombi* and *Rochefortia cuneata*.



Figs. 1-4. *Polycrea hedgpethi*, new species: 1, jaws; 2, everted tip of penis; 3, radula, half row; 4, right side of living animal.

and the sole light. Living animals are up to 50 mm. long and 5 mm. broad when fully extended; preserved specimens are 16 and 20 mm. long, 10 mm. high, and 7-8 mm. broad.

Velum with 2-3 digitiform processes on either side. Rhinophores slender, perfoliated, with 12 leaves; oral tentacles quite short. Foot corners in one specimen more, in the other less prominent; sole narrow; tail pointed. Lateral velar appendages continuous with pallial ridges, these provided with some tubercles. Three extrabranchial appendages on each side, larger than velar ones and increasing in size posteriorly. Nine tripinnate gills. Ridges uniting behind gills, continued as tuberculate caudal crest.

Jaws pale, with wing-like processes. Radula dark red, with 17 rows; formula 3-4.2,0,2.3-4; innermost of outer teeth with rudimentary cusp; height of teeth (in micra): 430, 520, 270, 200, 180, 150. Penis with 50 long, bristle-like spines.

Named for Dr. Joel W. Hedgpeth.

Holotype: the slug and slide (jaws and radula), USNM. 575602.

Discussion: The attempt to use Odhners' key of *Polycera* (1941: 16-19) leads me to *P. zosterae* O'Donoghue (1924:7) from the Vancouver Island region; no other species published since 1941 comes closer to *hedgpethi*. *P. zosterae* is 10.25 mm. long when moving, has 5-6 short tubercles on each side of the velum, 5-6 outer teeth in the half-row of the radula, and 3 righly branched gills.

Together with the new species, I received a specimen of *Polycera atra* MacFarland (1905:50; 1906:142) from the same locality (USNM 575604). Until now, *P. atra* was only known from Monterey Bay. The specimen from Tomales Bay extends the intraspecific variation of *atra*. It has a total of 6 velar appendages, 3-4 extrabranchial tubercles on each side and 9 gills. In the original material, the corresponding numbers were 4, 1-2, and 8.

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